



COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
SOUTHEAST REGIONAL OFFICE  
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DEVAL L. PATRICK  
Governor

TIMOTHY P. MURRAY  
Lieutenant Governor

IAN A. BOWLES  
Secretary

ARLEEN O'DONNELL  
Commissioner

March 15, 2007

Alfredo Andrés  
Inima USA Corporation  
1115 West Chestnut Street, Suite 204  
Brockton, Massachusetts 02301

**RE: DIGHTON – BRP/WMA**  
Aquaria Water LLC  
WMA Permit #9P4-4-25-076.01

Dear Mr. Andrés:

The Department of Environmental Protection (the Department) has received your request to revise the permittee on Water Management Act (WMA) Permit #9P4-4-25-076.01 from Inima USA Corporation to Aquaria Water LLC. In connection with the financing for the project, your lender will require that relevant permits be in the name of Aquaria Water LLC. The WMA Permit was issued on May 31, 2005 in the name of Inima USA Corporation, one of the members of Aquaria Water LLC.

In response to your request, enclosed please find:

- Water Management Act Permit #9P4-4-25-076.01 with permittee revised to Aquaria Water LLC, the Taunton River Water Supply Project, which replaces WMA Permit #9P4-4-25-076.01 issued to Inima USA Corporation on May 31, 2005, and
- Findings of Fact.

Please note that the signature on this cover letter indicates formal issuance of the attached document. If you have any questions regarding this information, please contact Leslie O'Shea at (508) 946-2837 or via e-mail at [leslie.o'shea@state.ma.us](mailto:leslie.o'shea@state.ma.us).

Very Truly Yours,

*This final document copy is being provided to you electronically by the  
Department of Environmental Protection. A signed copy of this document  
is on file at the DEP office listed on the letterhead.*

Richard J. Rondeau, Chief  
Drinking Water Program  
Bureau of Resource Protection

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This information is available in alternate format. Call Donald M. Gomes, ADA Coordinator at 617-556-1057. TDD Service - 1-800-298-2207.

DEP on the World Wide Web: <http://www.mass.gov/dep>

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Jill Cowie, Watershed Action Alliance

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Michele Drury, DCR  
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cc: Secretary Ian A. Bowles  
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Mayor Charles Crowley  
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Norwell, MA 02061

Water Supply Citizens Advisory Committee  
P.O. Box 478  
Hadley, MA 01035

**Communication for Non-English Speaking Parties (310 CMR 1.03(5)(a))**

**English**

This document is important and should be translated immediately.

**Spanish**

*Este documento es importante y se debe traducir inmediatamente.*

**Portuguese**

*Este original é importante e deve ser traduzido imediatamente.*

**Italian**

*Questo documento è importante e dovrebbe essere tradotto immediatamente.*

**Greek**

Αυτό το έγγραφο είναι σημαντικό και πρέπει να μεταφραστεί αμέσως.

**French**

*Ce document est important et devrait être traduit immédiatement.*

**Chinese (traditional)**

這個文件重要和應該立刻被翻譯。  
这个文件重要和应该立刻被翻译。

**Findings of Fact in Support of Final Permit Decision  
RE: Water Management Permit 9P4-4-25-076.01**

In response to your application for a permit to withdraw water from the Taunton Basin for the Taunton River Water Supply Project, hereafter referred to as “Aquaria”, and after reviewing the information that you have provided, the Department of Environmental Protection (the Department) hereby approves your application as noted herein in accordance with the Water Management Act (M.G.L. 21G).

As required by M.G.L. c.21G, s. 11, 310 CMR 36.26 and 310 CMR 36.00, the Department makes the following Findings of Fact in support of Aquaria’s WMA permit #9P4-4-25-076.01, and includes herewith its reasons for approving the permit and for imposing the conditions of approval. This permit replaces WMA Permit #9P4-4-25-076.01 issued to Inima USA Corporation on May 31, 2005.

**Background**

In 1993, the Massachusetts Executive Office of Environmental Affairs (EOEA) published a report entitled *Strategy for Meeting the Water Supply Needs of Brockton and other Taunton River Basin Communities through the year 2020*. The report proposed a desalination plant as a solution for the long-term water needs of Brockton and other communities of southeast Massachusetts.

**MEPA Review**

In 1994, Bluestone Energy Services filed a proposal for a regional water supply desalination plant for review under the Massachusetts Environmental Policy Act (MEPA), M.G.L. c. 30, §§61-62H. The Environmental Notification Form for the project was published in the *Environmental Monitor* on November 8, 1994, and was assigned project #10185. Subsequently, the following submittals were made: a Notice of Project Change (NPC) in November 1996; a Draft Environmental Impact Report (DEIR) in July 1997; a Final Environmental Impact Report (FEIR) in July 2000; an NPC in December 2002, and an NPC in March, 2005. The Certificate of the Secretary of Environmental Affairs on the FEIR was issued July 31, 2000. The Secretary’s Certificate on the December 2002 NPC, issued January 23, 2003, found that a Supplemental Environmental Impact Report was not required. The Secretary’s Certificate on the March 2005 NPC, issued May 9, 2005, found that no further MEPA review was required.

Following discussions with the environmental agencies, changes were made to the intake structure to reduce potential impacts to aquatic resources. On September 13, 2004, a formal determination was made by the Secretary’s Office that a Notice of Project Change was not needed for these changes.

### Interbasin Transfer Review

In December 1995, the Massachusetts Water Resources Commission (WRC) determined that the proposed desalination plant was subject to the Interbasin Transfer Act (ITA), M.G.L. c. 21, §§ 8B-8D as a transfer from the Massachusetts Coastal Basin as defined in its regulations, 313 CRM 4.03(28). The application for ITA approval was submitted as an appendix to the July 1997 DEIR. Following submittal of additional information by the proponent, and the coordinated review of this information by the Department of Conservation and Recreation (DCR) Office of Water Resources and other agencies of EOEA, the WRC approved the Aquaria ITA application, with conditions, on August 14, 2003. The WRC decision can be found at:

<http://www.mass.gov/dcr/waterSupply/intbasin/obj-acc.htm>

### WMA Review

To promote the interests of the Water Management Act (WMA), M.G.L. c. 21G, and to protect the resources of the Taunton River Basin, the Department has determined that Aquaria requires a Water Management Act Permit for the withdrawal of fresh water above threshold volume. This determination has been made following review of the salinity data and modeling results and the information provided during the MEPA process regarding the cycles of withdrawals and operation of the plant.

In reviewing Aquaria's WMA permit application, the Department has taken into consideration the information provided during the MEPA process, as well as the information provided during the review processes for WMA permit application and the applications for other environmental permits required by the project. The Department has reviewed the extensive public comment provided during the MEPA, ITA and WMA processes. The Department has participated in the coordinated review of this project with other EOEA agencies, including the: Department of Conservation and Recreation, Office of Water Resources; Office of Coastal Zone Management; Department of Fish and Game, Division of Fisheries and Wildlife, Division of Marine Fisheries, Natural Heritage and Endangered Species Program and Riverways Program.

\*\*\*\*\*

Based on review of the data provided, the following permit conditions have been established for the Aquaria water withdrawal.

**Special Condition 1** authorizes Aquaria to withdraw on average 8.81 MGD (millions of gallons per day) of raw water, for an annual total of 3215.65 MGY (millions of gallons per year), through February 28, 2010.

In addition, Special Condition 1 acknowledges that the City of Brockton has a contract with Aquaria Water LLC to purchase water from the Aquaria Project. In accordance with the contract between Aquaria and the City of Brockton and in accordance with the Water Resources Commission's March 11, 2004 approval of Brockton's Interbasin Transfer Application, Brockton can purchase on average 4.07 MGD, with the option to purchase an additional 1 MGD, through Phase 1 of the Aquaria Project.

As required by Special Condition 1, until such time as Aquaria demonstrates compliance with the requirements of Special Condition 3 of this permit, Addition of New Customers, Aquaria is limited to withdrawing those volumes contractually obligated to the City of Brockton.

Under WMA, Aquaria is required to apply for and obtain a new WMA permit for future withdrawals in excess of the volume authorized by this permit.

**Special Condition 2** authorizes a maximum daily withdrawal of 10 MGD (millions of gallons per day) of raw water.

The 10 MGD represents the volume required by Aquaria to produce 5 MGD of potable water in full desalination mode. During full desalination mode, Aquaria would discharge up to 5 MG back to the Taunton River following the treatment of the saline water.

It should be noted that the Secretary's July 31, 2000 Certificate and the WRC's August 14, 2003 ITA decision were based on the proposed future withdrawal of 20 MGD, and the review of environmental impacts under the MEPA and ITA processes was based on this 20 MGD withdrawal. This WMA permit authorizes a maximum withdrawal of 10 MGD for Phase 1 of the Aquaria project. Prior to initiating Phase 2 of the project, which would increase the withdrawal from 10 MGD up to 20 MGD, Aquaria will need to apply for and obtain a new WMA permit.

**Special Condition 3** establishes the WMA requirements for adding and/or changing customers (see 3.A.). In addition, this permit condition reiterates the MEPA (see 3.B.) and ITA (see 3.C.) requirements for adding new customers.

Any proposed new customers must demonstrate water demand and commitment to approved conservation measures. In addition, all new proposed customers must meet the requirements of MEPA and ITA, prior to the Department modifying this permit to acknowledge the new customers.

As required by the July 31, 2000 Secretary's Certificate each proposed new customer must file a NPC for review under MEPA (the applicable section of the July 31, 2000 Certificate is attached as Attachment A to this permit); this NPC would serve as the application for ITA approval.

By this permit condition, Aquaria is not required to file an application for a permit amendment to change or add new customers, provided the change does not result in the need for an increase in authorized withdrawal volume.

**Special Condition 4** requires Aquaria to operate the plant in conformance with the procedures outlined in Section 4 of *Taunton River Water Supply Project EOE No. 10185 Notice of Project Change*, so as to minimize any environmental impacts.

Aquaria is also to implement a long-term monitoring plan approved by the WRC and the Department. This plan was been drafted in accordance with the requirements of Aquaria's ITA approval; Attachment B includes these requirements.

The purpose of this plan is to: verify that the design and operation of the project will minimize impacts to fisheries; verify the modeling results with respect to salinity and confirm that changes in salinity will not impact fisheries or habitat; assess any impacts to rare species, and to assess any changes in water quality.

The final monitoring plan was approved by the WRC, with the agreement of the review agencies, on November 10, 2005. All of the specific performance standards, operational protocols and monitoring requirements contained in the plan are incorporated into this permit and are made enforceable by this permit.

**Special Condition 5** outlines the procedures for the review of information and data required by this permit. As necessary, the Department will modify this permit to incorporate any revisions to the MEPA and ITA requirements.

**Special Condition 6** requires Aquaria to develop a contingency plan to address the repair of any transmission line leaks. This plan shall be submitted to the Department for review and approval 120 days prior to commencing operation of the plant and transmission line. The plan shall be implemented in accordance with the Department's approval.

**Special Condition 7** requires Aquaria, as applicable, to abide by the 1998 Memorandum of Agreement (MOA) between the Department and the Department of Telecommunications and Energy (DTE) in setting rates for customers.

**Special Condition 8** contains the Chapter 30 Section 61 findings. This condition acknowledges Aquaria's preparation of an Environmental Impact Report under MEPA and Aquaria's commitment to use all feasible means or measures to avoid or minimize adverse environmental impacts.

**Special Condition 9** contains the general permit conditions applicable to all WMA permittees.

#### **Response to Public Comment:**

Written comments on the WMA application were received during the public comment period. A second public comment period was held for the Draft WMA Permit. The following are responses to these issues:

#### **RESPONSE TO COMMENTS PROVIDED ON THE AQUARIA WMA PERMIT APPLICATION:**

##### **Issue 1. Impacts on Taunton River Resources:**

General concern was raised over the impact of the withdrawal on resources of the Taunton River. Aquaria has presented considerable information regarding the impacts of the desalination plant in the MEPA submittals and the applications for ITA, WMA and other permits. In addition, Aquaria has participated in discussions with the review agencies to modify operation procedures and plant design to ensure maximum protection of resources.

Aquaria has drafted a long-term monitoring plan to verify that the design and operation of the proposed project will minimize impacts to resources including fisheries and Long's Bittercress. The monitoring program will be used to verify the modeling results and document any potential changes in water quality in order to assess effects on sensitive resources.

Comments regarding specific river resources are addressed below in Issues 2 through 5.

## **Issue 2. Impacts on salinity levels in the Taunton River:**

Concern was raised over the potential increase in salinity levels in the river, migration of the saltwater wedge, and impacts of any rise in salinity on biota. The plant's operational procedures, as described in the MEPA and ITA filings, have been developed to minimize impacts due to changes in salinity. Brine resulting from the RO process will be diluted and discharged in sequence with the high salinity period of the tidal cycle. Salinity concentrations of the blended brine in the discharge will be controlled to closely match the ambient salinity in the Taunton River at the time of discharge. Salinity probes will be installed at the intake location for the continuous monitoring of the river water salinity, as well as within the plant and at a point in the discharge pipeline just before discharge to the River. All salinity probes will be connected to the PLC based Supervisory Control and Data Acquisition (SCADA) System and will provide real time salinity monitoring data. The NPDES permit for this facility will include discharge limits for salinity.

Based on comments by DMF and the environmental review agencies, the design of the intake structure was modified to relocate the brine discharge pipe at the most inland point of the structure. This will provide additional dilution of the brine and have the benefit of dissipating the velocity of the blended brine discharge before the discharge reaches the river.

Aquaria has provided the results of a salinity model which shows that under operating conditions any change in salinity would be within the normal variation of the salinity range both at the discharge site and upstream of the discharge. Further, the model indicates that the maximum extent of the salt wedge will occur 3000 meters north of the intake structure of the plant. Aquaria has worked with the environmental review agencies to develop a monitoring plan which will affirm the results of the model and meet the monitoring requirements of the ITA Approval and this permit.

## **Issue 3. Impact on river elevation**

As stated in the ITA decision issued August 14, 2003:

"...the amount of water the plant can withdraw on an hourly basis is large relative to the amount of water that would flow downstream if there were no tidal influence.



However, the head produced by the tide is far greater than the force of the withdrawal, therefore the tide provides a continuous pressure in the upstream direction, and back fills at the withdrawal point to maintain the normal elevations. ... Due to the withdrawal of water during tidal rise and fall, no impact to water elevation will occur during flood, moderate or low flow periods from the proposed transfer.”

**Issue 4. Impacts on fisheries:**

Both the intake design and the operational procedures were developed to minimize impacts to fisheries. Aquaria has worked extensively with DMF and the other environmental review agencies to finalize the design and operational procedures, as well as the monitoring plan requirements. This permit includes a performance standard for impingement and entrainment during the periods when the exclusionary netting (Gunderboom® or similar) is deployed, as well as provisions for modifications should the monitoring data indicate adverse impacts.

Based on comments by DMF and the environmental review agencies, the design of the intake structure was modified to include installation of a Wedgewire Screen riverward of the Johnson or similar screening system. The Wedgewire Screen will have a 0.25 inch opening, and will provide additional control against impingement during the months that the exclusionary netting is not deployed (November 15 – March 1). (As noted above, a formal determination was made on September 13, 2004 by the Secretary’s Office that a Notice of Project Change was not needed for these changes.)

**Issue 5. Impacts on Long’s Bittercress:**

Aquaria submitted a *Conservation Permit Application for Long’s Bitter-cress (Cardamine longii)* which was approved by the Natural Heritage & Endangered Species Program (NHESP) on February 9, 2005. Special Condition 5 of this permit requires that the monitoring plan include provisions to assess effects on sensitive resources, including Long’s Bittercress. Should monitoring reveal negative alteration of resources attributable to the Aquaria withdrawal, the Department may amend this permit pursuant to 310 CMR 36.29 to include conditions to mitigate the negative impacts attributable to the withdrawal.

**Issue 6. Concerns regarding the private ownership of Aquaria:**

As stated above, in 1993, the Secretary of Environmental Affairs, as directed by Governor Weld, convened a technical review group to develop the *Strategy for Meeting the Water Supply Needs of Brockton and Other Taunton River Basin Communities Through the Year 2020*. A Taunton River source or desalination plant was recommended by this study as a long-term solution for Brockton’s and the region’s water needs. At that time it was recommended that a public entity implement the desalination option. However, no public entity came forward with the capital to implement the project. Instead, a private company, Aquaria Water LLC, came forward with the approximately \$40 million needed to permit, design and construct the project.

As with all “public” utilities, Aquaria will be regulated by the Department of Telecommunications and Energy, and will be required to operate within the limits of the permits issued by the environmental agencies.

**Issue 7. Impacts on Brockton’s other water sources:**

A number of comments were received related to management of the City of Brockton’s other water sources. As Aquaria has no authority over Brockton’s management of their other water sources, these issues will be appropriately addressed by a *Comprehensive Water Management Plan* required by Brockton’s modified WMA Permit.

**Issue 8. Concerns regarding connection of other customers to Aquaria:**

Special Condition 3 of this permit outlines Aquaria’s requirements for adding customers, as well as reiterating the MEPA and ITA requirements for adding customers. Any request by Aquaria for additional volume must be made via an application for a new permit; any proposal to connect additional customers must meet the requirements of Condition 3.

**Issue 9. Impacts on regional growth:**

The July 31, 2000 Certificate of the Secretary of Environmental Affairs addressed the potential impact of this project on regional growth. To assure that the mandates of Executive Order 385 are addressed, the Secretary required that each entity requesting to connect to Aquaria file a Notice of Project Change under MEPA. The NPC filing and any subsequent applications for ITA and/or WMA must justify demand, address water conservation and address secondary growth impacts. These requirements are reiterated in Special Condition 3 of this permit.

**Issue 10. Impacts on the Brockton Wastewater Treatment Plant:**

Impacts on Brockton’s wastewater system were addressed in the *Notice of Project Change for Connection to the Regional Desalinization Project* filed with the MEPA Office in October 2003. Brockton completed a facilities assessment of the treatment plant in 2002 and a sewer system evaluation study in 2000. Upgrades to the wastewater treatment plant and the collection system are being conducted in coordination with the USEPA and the Department.

**RESPONSE TO COMMENTS PROVIDED ON THE DRAFT WMA PERMIT:**

**Issue 1. *The permit fails to specify the uses of the water to be withdrawn from the Taunton River:***

*As specified on the first page of the permit, the use is public water supply.*

*Any public water supplier (PWS) in the Commonwealth is allowed to provide water to a variety of users, including, industrial, agricultural, commercial, etc, as well as residential. As with any other PWS, Aquaria may sell water to a variety of users, however, the process for such sales requires a three-step review under MEPA, ITA and WMA, which is not required for other PWSs in the Commonwealth.*

*It is the Department's stand that this three-step process is protective and will ensure that the water withdrawn by Aquaria is put to beneficial uses which will aid in resolving regional water supply issues.*

*The comment provided states:*

*"In sum, the Permit and the Brockton Permit must assign specific amounts of Taunton River to Brockton and make adjustments to the Silver Lake withdrawal."*

*Special Condition 1 of this permit has been revised to include the volume of water contractually obligated to the City of Brockton. As required by Special Condition 1, until such time as Aquaria demonstrates compliance with the requirements of Special Condition 3 of this permit, Addition of New Customers, Aquaria is limited to withdrawing the volume required to meet the finished water volume contractually obligated to the City of Brockton.*

*With regard revising this permit to include adjustments to the Silver Lake withdrawal, the Department reiterates the response to Issue 7 above, "Aquaria has no authority over Brockton's management of their other water sources." The appropriate vehicle for such resource management is in the WMA Permit issued to the City of Brockton. has been revised to require the Comprehensive Water Management Plan.*

*Once the Comprehensive Water Management Plan is approved, the Department will modify Brockton's WMA Permit to require implementation of an approved strategy to manage its withdrawals, including any volumes purchased, to minimize the environmental impacts associated with the withdrawals.*

**Issue 2. *The permit should be linked to the EPA NPDES Permit for the Aquaria facility:***

*Special Condition 9 of this permit states:*

- 1. Duty to Comply** *The permittee shall comply at all times with the terms and conditions of this permit, the Act and all applicable State and Federal statutes and regulations.*

*This General Permit Condition is included in all WMA Permits as required by 310 CMR 36.28(2) and was included in the draft permit circulated for review.*

*Language referencing the monitoring requirements of the NPDES Permit have been included in the draft monitoring plan. Once the NPDES Permit has been finalized, the NPDES monitoring requirements will be added to the final monitoring plan.*

**Issue 3. *Preoperational baseline monitoring must be complete before the Aquaria Facility withdraws water from the river:***

*This requirement was included in the draft permit circulated for comment and is included in the final permit, and is consistent with the findings of the Water Resources Commission. Specifically, Special Condition 4 of the WMA Permit reiterates the requirements of the Interbasin Transfer Act Approval and states:*

*“In accordance with the ITA requirements, one-year of baseline monitoring shall be conducted prior to operation of the plant.”*

**Issue 4. *The Permit must set environmental compliance parameters and responses to violations:***

*As required by Special Condition 4 of this permit, the final monitoring plan will include performance standards, and operational and response protocols as well as monitoring requirements for Aquaria. Further, Special Condition 4 states:*

*“Once finalized, all of the specific performance standards, operational protocols and monitoring requirements contained in the monitoring plan shall be incorporated into this permit and made enforceable hereunder.”*

**Issue 5. *Brockton must prepare a Comprehensive Water Management Plan before water is taken from the Taunton River:***

*The revised WMA Permit for the City of Brockton requires the completion of the Comprehensive Water Management Plan on the schedule provided in the revised Permit. As Brockton’s previous explorations of alternative water supplies have proven unsuccessful, the City is depending upon Aquaria as a long-term water supply. For this reason, Brockton has entered into a contract which obligates the City to purchase water from Aquaria. Until such time as Brockton is assured of an alternate supply of water it must rely upon its registered and permitted sources for its short and long term water needs.*

**Issue 6. *The permit conditions on new customers constitute a loophole allowing the Taunton River Basin's Water to be plundered recklessly:***

*The Department disagrees with this comment and contends that the three levels of review for new customers (i.e., review under MEPA, ITA and WMA) are protective and sufficient to assure adequate review of potential customers. It is not the intention of the Department in issuing this permit, which is consistent with the findings of the Secretary of Environmental Affairs and the Water Resources Commission, to allow the water of the Taunton River Basin to be plundered recklessly.*

**Issue 7. *Comments regarding the monitoring plan:***

*As acknowledged by Special Condition 4, the monitoring plan for the Aquaria project has not been finalized. However, Special Condition 4 requires that the plan be finalized and approved by the review agencies prior to operating the plant and withdrawing water. In addition, one full year of baseline monitoring is required prior to operating the plant.*

*The environmental review agencies have worked with Aquaria to develop the plan which will verify that the design and operation of the plant will minimize the impact of the withdrawal and discharge, as well as verify the results of Aquaria's modeling efforts. The final monitoring plan will include performance standards, and operational and response protocols. Monitoring shall be performed for a period to be decided upon based on results of the monitoring program. Should Aquaria propose to implement Phase II of the project, withdrawal of up to 20 MGD for the production of 10 MGD of potable water, the requirements of the monitoring plan including the well as the performance standards, and operational and response protocols will be reviewed. In addition, in accordance with this permit and the ITA decision modifications to the plan may be required based on the results of the monitoring. Results of the monitoring will be made available to the review agencies and stakeholders. Results of the monitoring will be available at both the Southeast Regional Office and at the Dighton Public Library. Aquaria will also investigate setting up a web-site to post these results.*

**Issue 8. *A public advisory board should be established:***

*The review processes provided under MEPA, ITA, WMA and other permits required by this project have provided and will continue to provide an open forum for the public to participate in review of this project and to provide comment.*

*In addition, Special Condition 5 of this permit requires the coordinated review of information required by the WMA Permit, including distribution to the MEPA Office, WRC, other environmental agencies and stakeholders.*

*The Department will participate in any advisory board established specifically for the Aquaria project (or for desalinization projects in general). However, the Department cannot commit the resources of other state or federal agencies to such a board.*

***Issue 9. A stewardship fee should be assessed on Aquaria's water sales.***

*The Department has no regulatory authority to require such a fee and has suggested that the Watershed Action Alliance, who provided this comment, address this idea directly to Aquaria.*

***Issue 10. Comments regarding DTE requirements.***

Special Condition 7 of this permit requires Aquaria to abide by December 24, 1998 MOA between the Department and the Department of Telecommunications and Energy (DTE) with regard to rate setting. DTE issued a final order to Aquaria on February 25, 2005.

**WATER WITHDRAWAL PERMIT**  
**MGL c 21G**

This permit is approved pursuant to the Massachusetts Water Management Act (WMA) for the sole purpose of authorizing the withdrawal of a volume of water as stated below and subject to the following special and general conditions. This permit conveys no right in or to any property beyond the right to withdraw the volume of water for which it is issued.

**PERMIT NUMBER:** 9P4-4-25-076.01 **RIVER BASIN:** Taunton River Basin

**PERMITTEE:** Aquaria Water LLC,  
Taunton River Water Supply Project (hereafter, Aquaria)  
455 Somerset Street  
Dighton, MA 02715

**EFFECTIVE DATE:** May 31, 2005

**EXPIRATION DATE:** February 28, 2010

**TYPE AND NUMBER OF WITHDRAWAL POINTS:**

Groundwater:  
Surface Water: 1

**USE:** Public Water Supply

**DAYS OF OPERATION:** 365

**AUTHORIZED WITHDRAWAL POINT:**

Source	Source Code
Taunton River @ Dighton Massachusetts	To be assigned.

## **SPECIAL CONDITIONS**

### **1. Authorized Annual Average Withdrawal Volume**

This permit authorizes Aquaria to withdraw water from the Taunton River Basin at the rate described below. The permitted volume is expressed in millions of gallons, both as an average daily withdrawal rate, and as a total annual withdrawal volume for each five-year period of the permit term.

The Department of Environmental Protection (the Department) bases these withdrawal volumes on the raw water withdrawn from the authorized water sources, and will use the raw water amount to assess compliance with the permitted withdrawal volumes.

Withdrawals authorized by this permit are as follows:

<u>Five Year Periods</u>	<u>Authorized Raw Water Withdrawal Volumes</u>	
	Daily Annual Average (MGD)	Total Annual (MGY)
5/31/2005 to 2/28/2010	8.81	3,215.65

Aquaria shall report on the Annual Statistical Report both the raw and finished water volumes for the entire water system.

The City of Brockton has a contract with Aquaria Water LLC to purchase water from Aquaria. In accordance with the contract between Aquaria and the City of Brockton and in accordance with the Water Resources Commission's March 11, 2004 approval of Brockton's Interbasin Transfer Application, Brockton can purchase on average 4.07 MGD, with the option to purchase an additional 1 MGD, through Phase 1 of the Aquaria Project.

Until such time as Aquaria demonstrates compliance with the requirements of Special Condition 3 of this permit, Addition of New Customers, Aquaria is limited to withdrawing those volumes contractually obligated to the City of Brockton.

### **2. Maximum Daily Withdrawal from Authorized Withdrawal Point**

Withdrawals from the Taunton River at the authorized withdrawal point shall not exceed 10 MGD (raw water maximum) without specific advance written approval from the Department.



### **3. Addition of New Customers**

#### **3.A. WMA Requirements for Adding New Customers:**

Changes in customers that will result in an increase in the annual withdrawal volume require the filing of an application for a new WMA permit. Any change in customers purchasing water, that can be met within the above permitted volume, requires notification to the Department, prior to Aquaria and the customer signing a contractual agreement. Aquaria is not required to file an application for a permit amendment to change or add new customers, provided the change does not result in the need for an increase in authorized withdrawal volume.

New customers must demonstrate water demand and commitment to approved conservation measures. The following information will be required:

##### **3.A.1. Demand Requirements**

The proposed volumes to be purchased must be provided.

Public Water Suppliers (PWSs) seeking to purchase water from Aquaria must have a *Water Needs Forecast* approved by the Massachusetts Water Resources Commission. Those PWSs who do not have approved *Water Needs Forecasts* or wish to increase their existing forecasts, must obtain new or increased forecasts from the WRC.

For all other entities, a description of their water needs is required. If the entity has previously been reviewed under MEPA, the description of their water needs from their ENF/EIR submittal to MEPA is required.

##### **3.A.2. Conservation Requirements**

Public Water Suppliers (PWS) must have a completed Water Conservation Plan for Public Water Suppliers form found at:

<http://www.mass.gov/dcr/waterSupply/intbasin/download.htm>

This plan must comply with the Water Resources Commission's 1992 *Water Conservation Standards for the Commonwealth* and the 2002 *Addendum to the Water Conservation Standards, Lawn and Landscape Conservation*.

For all other entities, a description of their water conservation measures is required. If the entity has previously been reviewed under MEPA, the description of their water needs and proposed conservation measures from their ENF/EIR submittal to MEPA is required. Water conservation measures should include any existing best management practices for the purchaser's water use type. The Department shall review the required water needs and water conservation plans for these entities. All plans shall incorporate an agreement to implement the conservation measures approved by the Department.

### **3.B. MEPA Requirements for Adding New Customers:**

On June 24, 2000, the Secretary of Environmental Affairs issued a Final EIR Certificate for Taunton River Water Supply Project (Aquaria), EOEA #10185. This Certificate outlines Aquaria's requirements under the Massachusetts Environmental Policy Act (MEPA) regarding the addition of new customers, as well as the requirements for the entities seeking to purchase water from Aquaria.

Attachment A includes the MEPA requirements for adding new customers as excerpted from the Secretary's June 24, 2000 Certificate.

The MEPA requirements for adding new customers must be met by both Aquaria and the proposed new customers, prior to the Department issuing a new permit or modifying this permit to acknowledge new customers. As necessary, the Department will modify this permit to incorporate any revisions to the MEPA requirements.

### **3.C. ITA Requirements for Adding New Customers:**

On August 14, 2003, the Massachusetts Water Resources Commission (WRC) issued findings on the *Compliance with the Environmental Criteria of the Interbasin Transfer Act Aquaria Regional Desalinization Project*. These findings state:

**Aquaria cannot sell water to any customer, until the customer has completed the NPC process with MEPA, and demonstrates to the WRC that, depending upon the amount purchased, it is in compliance with the applicable water supply management criteria.**

The ITA requirements for adding new customers must be met by both Aquaria and the proposed new customers, prior to the Department issuing a new permit or modifying this permit to acknowledge new customers. As necessary, the Department will modify this permit to incorporate any revisions to the ITA requirements.

A copy of the WRC's findings can be found at:

<http://www.mass.gov/dcr/waterSupply/intbasin/obj-acc.htm>

## **4. Operation Requirements, Performance Standards and Monitoring Requirements**

Aquaria shall operate the desalinization plant in accordance with Section 4 of *Taunton River Water Supply Project EOEA No. 10185 Notice of Project Change*. The Department must be notified at least sixty (60) days in advance of any proposed change in operation of the plant that will result in changes in the withdrawal. Changes in operation that result in changes in the withdrawal must be approved by the Department prior to implementing the change. Prior to approving any changes in plant operation that result in changes in the withdrawal, the Department will consult the appropriate environmental agencies for concurrence and/or approval as necessary.

Aquaria has finalized the document entitled “*Fisheries, Vegetation and Water Quality Monitoring Plan, Taunton River Desalination Plant* “. The final monitoring plan was approved by the WRC, with the agreement of the review agencies, on November 10, 2005.

The plan contains the terms and conditions related to performance standards, operational and response protocols and monitoring requirements for Aquaria. In accordance with the ITA requirements, one-year of baseline monitoring shall be conducted prior to operation of the plant. A report shall be prepared at the conclusion of the baseline monitoring period and submitted to the WRC and the Department for review and approval prior to starting operations.

All of the specific performance standards, operational protocols and monitoring requirements contained in the monitoring plan are incorporated into this permit and are made enforceable hereunder.

Aquaria shall implement the “*Fisheries, Vegetation and Water Quality Monitoring Plan, Taunton River Desalination Plant* “ as approved by the WRC and the Department.

Should monitoring reveal negative alteration of resources attributable to the Aquaria withdrawal, the Department may amend this permit pursuant to 310 CMR 36.29 to include conditions to mitigate these negative impacts. Aquaria must commit in writing to abiding by any restrictions that may be placed on the operation of the desalinization plant as a result of monitoring.

Aquaria shall perform operational monitoring for a period to be decided upon based on results of the monitoring program. Aquaria may submit a request for modification of the monitoring plan when sufficient information exists to support changes. The basis for the proposed modification(s) shall be clearly described and justified. Any changes to the monitoring must be approved by the WRC and the Department.

A draft of the annual monitoring report shall be submitted to the Department by April 30 following each monitoring year. Review of annual monitoring submittals shall be coordinated in accordance with Special Condition 5 below. The final version of the annual monitoring report shall be submitted within sixty days following receipt of comments from the review agencies.

## **5. Review Coordination**

Aquaria shall submit to the Department a copy of all information required as part of the Interbasin Transfer Approval. This requirement shall include any pre-operation baseline information. As necessary, the Department will modify this permit to incorporate any revisions to the MEPA and ITA requirements.

The Department will coordinate its review of information required by this permit (other than the leak repair contingency plan) with the MEPA Office, the WRC and other environmental agencies, as appropriate. As required by the Department, Aquaria shall distribute copies of the information required by this permit to other environmental agencies and watershed stakeholders. The Department will consult and coordinate with the MEPA Office, the WRC and other state environmental agencies, and will consider public comment, prior to making changes or modifications to this permit.

The Department will not issue a decision regarding any application for a new WMA permit or amendment to this permit, or approve the addition of any new customer, until the applicable requirements of MEPA and ITA are met by Aquaria. In addition, the Department will not issue a decision regarding the addition of any new customer, until the applicable requirements of MEPA and ITA are met by the proposed new customer.

#### **6. Leak Repair Program**

Aquaria shall develop a contingency plan to address the repair of any transmission line leaks. This plan shall be submitted to the Department for review and approval 120 days prior to commencing operation of the plant and transmission line. The plan shall be implemented in accordance with the Department's approval so as to assure the uninterrupted supply of water to its customers.

#### **7. Rate Setting**

Where applicable, the Memorandum of Agreement (MOA), dated December 24, 1998, between the Department and the Department of Telecommunications and Energy (DTE) is deemed to apply to rate setting by the DTE for Aquaria, including contractual relationships between Aquaria and its Customers.

#### **8. Chapter 30, Section 61 Findings**

The Environmental Impact Report for the Taunton River Water Supply Project (Aquaria), EOEA #10185, has been carefully considered prior to action on the permit request. The Department, in issuing this permit, has required that the applicant has used or will use all feasible means or measures to avoid or minimize adverse environmental impacts. Measures that the Department deems necessary to mitigate or prevent harm to the environment are included in the conditions, if any, of this approval. The Department has made its permitting decision under applicable law on a balancing, where appropriate, of environmental and socioeconomic objectives, as mandated by 301 CMR 11.00.

**9. General Permit Conditions (applicable to all permittees)**

No withdrawal in excess of 100,000 gallons per day shall be made following the expiration of this permit, unless before that date the Department has received a renewal permit application pursuant to 310 CMR 36.00.

1. **Duty to Comply** The permittee shall comply at all times with the terms and conditions of this permit, the Act and all applicable State and Federal statutes and regulations.
2. **Operation and Maintenance** The permittee shall at all times properly operate and maintain all facilities and equipment installed or used to withdraw up to the authorized volume so as not to impair the purposes and interests of the Act.
3. **Entry and Inspections** The permittee or the permittee's agent shall allow personnel or authorized agents or employees of the Department to enter and examine any property for the purpose of determining compliance with this permit, the Act or the regulations published pursuant thereto, upon presentation of proper identification and an oral statement of purpose.
4. **Water Emergency** Withdrawal volumes authorized by this permit are subject to restriction in any water emergency declared by the Department pursuant to MGL c 21G ss 15-17, MGL c 150 ss 111, or any other enabling authority.
5. **Transfer of Permits** This permit shall not be transferred in whole or in part unless and until the Department approves such transfer in writing, pursuant to a transfer application on forms provided by the Department requesting such approval and received by the Department at least thirty (30) days before the effective date of the proposed transfer. No transfer application shall be deemed filed unless it is accompanied by the applicable transfer fee established by 310 CMR 36.37.
6. **Duty to Report** The permittee shall submit annually, on a form provided by the Department, a certified statement of the withdrawal, such report to be received by the Department by the date specified by the Department. Such report must be mailed or hand delivered to:  
  

Commonwealth of Massachusetts  
Department of Environmental Protection  
Water Management Program  
One Winter Street  
Boston, MA 02108
7. **Duty to Maintain Records** The permittee shall be responsible for maintaining withdrawal records as specified by this permit.
8. **Metering** The withdrawal point shall be metered. The meter shall be calibrated annually. The meter shall be maintained and replaced as necessary to ensure the accuracy of the withdrawal records.

### **APPEAL RIGHTS AND TIME LIMITS**

This permit is a decision of the Department. Any person aggrieved by this decision may request an adjudicatory hearing. Any such request must be made in writing, by certified mail and received by the Department within twenty-one (21) days of the date of receipt of this permit.

No request for an appeal of this permit shall be validly filed unless a copy of the request is sent by certified mail, or delivered by hand to the local water resources management official in the city or town in which the withdrawal point is located; and for any person appealing this decision, who is not the applicant, unless such person notifies the permit applicant of the appeal in writing by certified mail or by hand within five (5) days of mailing the appeal to the Department.

### **CONTENTS OF HEARING REQUEST**

310 CMR 1.01(6)(b) requires the request to include a clear and concise statement of the facts which are the grounds for the request and the relief sought. In addition, the request must include a statement of the reasons why the decision of the Department is not consistent with applicable rules and regulations, and for any person appealing this decision who is not the applicant, a clear and concise statement of how that person is aggrieved by the issuance of this permit.

### **FILING FEE AND ADDRESS**

The hearing request, together with a valid check, payable to the Commonwealth of Massachusetts in the amount of \$100 must be mailed to:

Department of Environmental Protection  
Commonwealth Master Lockbox  
P.O. Box 3982  
Boston, Ma. 02241-3982

The request shall be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described below.

### **EXEMPTIONS**

The filing fee is not required if the appellant is a city or town (or municipal agency), county, district of the Commonwealth of Massachusetts, or a municipal housing authority.

### **WAIVER**

The Department may waive the adjudicatory hearing filing fee for any person who demonstrates to the satisfaction of the Department that the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request, an affidavit setting forth the facts that support the claim of undue hardship.

## **ATTACHEMENT A**

### **MEPA Requirements for Adding New Customers**

*The following requirements are excerpted from the June 24, 2000 Certificate of the Secretary of Environmental Affairs on the Final Environmental Impact Report for the Taunton River Water Supply Project (Aquaria), EOE #10185 (pages 5-7).*

### **Regional Growth Issues and Further Review**

In addition to the site-specific impacts discussed above, this privately developed infrastructure project would constitute a regional water supply, whose development raises *significant* questions about the impacts of project-induced growth on water consumption and land development patterns. Future users of this water supply may include a number of towns in Southeastern Massachusetts. Some commenters have voiced the fear that in some communities, a new and more plentiful water supply may undercut water conservation measures and spur “sprawl” patterns of land development.

In light of these concerns, I want to take the opportunity in this certificate to map out the following process, which is intended to ensure the timely and informed future review of these issues. Each community that wishes to connect to the water supply project will at least be required to modify its Water Management Act (WMA) permit or registration from DEP. In addition, for any community requiring a “significant interbasin transfer”, an Interbasin Transfer Act (ITA) approval will be required from the Water Resources Commission. To avoid project segmentation and ensure the review of cumulative impacts, I am therefore requiring that prior to the issuance of any permit (within the meaning of the MEPA regulations) under either the WMA or ITA, the community seeking to connect must file a Notice of Project Change (NPC) with the MEPA Office, regardless of whether the project would have triggered an individual threshold. Each NPC should summarize the relevant community-specific information on water conservation, protection of existing water supplies and critical environmental resources, and planning for growth, as discussed below. As part of each such NPC, Bluestone or its successor, as a co-proponent, must provide a complete list of all communities currently proposing to tie into the system, the ITA and WMA permits and approvals that would be required, and the estimated cumulative regional consumption patterns, both community-by-community and system-wide. I anticipate that these NPCs, while covering important issues, will primarily summarize existing information and should therefore not be unduly burdensome to prepare.

#### **Interbasin Transfer Act:**

As noted in the WRC comment letter, the project is subject to the ITA Act because it involves a transfer of water out of the Massachusetts Coastal basin to the Taunton River basin. The WRC has reviewed the Final EIR and indicates that some issues remain outstanding. That information should be provided with the proponent’s ITA application, and as part of the first community specific NPC.

### Water Conservation:

As part of the ITA and WMA review processes, user communities must take all necessary actions to lessen overall demand, conserve existing supplies, remain within the safe yield of their systems, minimize impacts on critical resources, and plan prudently for new supplies, in addition, communities should discuss past and present efforts to diagnose demand and its consequences. I note that the per capita water use goal under the ITA is 65 gallons per day. That should be the target of all communities. I commend the City of Brockton for working to lower its per capita use, and I expect that the City will continue with its water conservation program. I note the Town of Easton is a model for water conservation. Each NPC should discuss these issues in detail, and how objectives will be met. Otherwise, further MEPA review could be required prior to permitting.

Because **water** is becoming more and more costly, and because more communities are looking at and adopting pricing strategies such as an inclining block rate structure, I believe that there will be continuing incentives on a personal, business and town-wide level to conserve water. From a regulatory perspective, prospective user communities will need to meet specific water conservation requirements/guidelines under the ITA and WMA processes, before they are allowed to become a user community. They also must be required not to abandon any existing sources, **as these** are too valuable to be lost.

Any community purchasing water from the Bluestone project will need to submit an updated water conservation plan that meets the necessary performance standards. In particular, I note the comment from the WRC that states a community must file or have filed a water Conservation plan that goes beyond (as amended by the WRC in 1999) the 1992 Water Conservation Standards for the Commonwealth of Massachusetts, in order to receive ITA approval. Each ITA application must fully satisfy *the* requirements for MEPA review.

### Secondary Growth Impacts;

With respect to concerns of increased growth spurred by the new water source, I remind state regulatory authorities of their obligations with respect to Executive Order 385 — Planning for Growth. In particular, regional growth management should be coordinated with the future permitting of community water users. To carry out EO 385's mandate, each community-specific NPC must discuss the Regional Policy Plan and the current local comprehensive plan or EO 418 Community Development Plan, and describe measures that will be taken to mitigate secondary growth impacts (such as nonpoint source pollution and loss of open space and wildlife habitat).



## **ATTACHEMENT B**

### **Monitoring Requirements of the ITA Approval**

The following requirements are excerpted from August 14, 2003 findings of the Massachusetts Water Resources Commission on the *Compliance with the Environmental Criteria of the Interbasin Transfer Act Aquaria Regional Desalinization Project*.

***For the purposes of evaluating the Aquaria project against Criterion #5, that reasonable instream flow in the river from which the water is transferred is maintained (environmental impacts), the WRC has interpreted this to address impacts to the Taunton River Estuary. In order to fully comply with this Criterion:***

1. Aquaria must develop a long-term monitoring plan to verify that the design and operation of the proposed project will minimize impacts to fisheries through impingement or entrainment of any fish species at any lifestage. In addition, the monitoring program should verify that the modeling results with respect to salinity are accurate and that the simulated change in salinity will not impact fisheries or habitat as concluded by the environmental agencies. Potential changes in water quality, including turbidity, must be documented through monitoring in order to assess effects on sensitive resources, including Long's Bittercress. The monitoring plan must be approved by the DMF, NHESP, DEP, CZM and the WRC and other agencies, if appropriate, prior to implementing any required monitoring. The proponent is encouraged to develop one monitoring plan, which can be used to address all environmental permits that regulate impacts to the estuary from this project.
2. A draft monitoring plan must be submitted to DMF, NHESP, DEP, CZM and WRC staff for their review and approval. Elements of the plan must include one year of baseline monitoring to be conducted prior to plant operation, as well as long-term monitoring to be conducted after the start-up of plant operations, for the appropriate parameters (Long's Bittercress, fisheries, salinity and salinity wedge migration, water quality, etc.) and a schedule for reporting monitoring results. Specific details, additional monitoring parameters, observation locations, monitoring schedule and standard operating procedures will be established in conjunction with discussions with the appropriate agencies and WRC staff. These could include trigger or action levels, which if exceeded at any time, require immediate agency notification to determine the actions that should be taken.
3. All monitoring, including the year of baseline monitoring, must be conducted according to the approved monitoring plan.
4. A report shall be prepared at the conclusion of the baseline monitoring period and prior to operation of the plant and submitted to DMF, NHESP, DEP, CZM and WRC staff for review and approval prior to starting operations. Following review of the baseline data:
  - WRC may require changes to the operational monitoring plan;

- Aquaria may propose revisions to the operational monitoring plan, subject to agency review and approval.
5. All monitoring results must be reported to WRC staff, NHESP, DMF, CZM and DEP, in accordance with the approved monitoring plan, for their review and assessment. Annual reports of operational monitoring shall be furnished to the agencies cited above for review. Modifications to the monitoring or operational plans plan may be required by the WRC and the appropriate state agency(ies) based on the results of the monitoring. If the monitoring data indicate modeling data were incorrect and adverse impacts that can be related to the operation of the plant and/or the withdrawals or discharges have resulted, then the appropriate environmental permit may be conditioned to mitigate these impacts.
  6. Aquaria shall perform operational monitoring for a period to be decided upon based on results of the monitoring program. Aquaria may submit a request for modification of the operational monitoring program when sufficient information exists to support changes. The basis for the proposed modification(s) shall be clearly described and justified. Any changes to the operational monitoring plan must be approved by the WRC and the appropriate state agency(ies).
  7. Aquaria shall provide access and allow agency personnel (or delegated parties) to inspect the site to verify conditions of this approval.

***In order to fully comply with Criterion #8, the Commission shall consider the impacts of all past, authorized or proposed transfers in the donor basin:***

Aquaria must commit in writing to abiding by any restrictions that may be placed on the operation of the desalinization plant as a result of monitoring.